

# Project Fact Sheet

## *PowerGuard Advanced Manufacturing Development*

### GOAL

- Reduce photovoltaic system costs and improve system reliability.

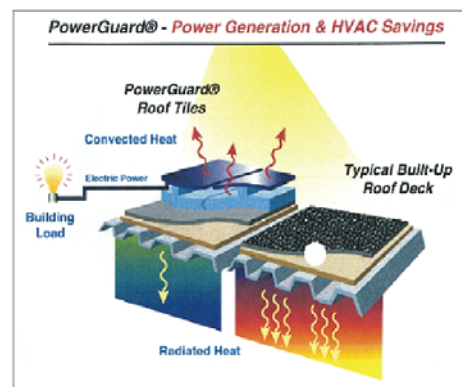
### PROJECT DESCRIPTION



In the three years of the PIER project, PowerGuard has gone from producing a small number of tiles largely by hand and one at a time to full-scale, high quality, high volume production using custom designed machinery.

The objective of this contract was to reduce PowerGuard system cost and improve system reliability through:

- Advanced fabrication equipment, increasing production capacity and reducing labor costs;
- Redesign and development of an inverter controller with data-acquisition and dial-up communication features for monitoring system performance;
- Development of PowerLight's in-house capability to fabricate PowerCurb housings;
- Refinements to manufacturing processes for other PowerGuard product features;
- Ensuring that PowerGuard systems, as modified under this project, will continue to receive certifications from specific independent testing and certification entities.



### BENEFITS TO CALIFORNIA

This project has helped PowerLight Corporation to make solar power more affordable and at the same time offering additional value by extending roof lifetimes and providing buildings with added thermal insulation benefits. Solar-electric power systems provide a domestic source of energy that is plentiful, transform clean, abundant solar energy into electricity, and are virtually maintenance free.

## FUNDING AMOUNT

Commission	\$925,085
Match	\$1,144,053
Total	\$2,069,138

## PROJECT STATUS

Project is completed, under-budget, on time and is providing royalties to the State. Project accomplishments were:

- Production rates rose from 200 tiles per 8-hour shift to more than 500 tiles per 8-hour shift.
- The overall system cost of PowerGuard was reduced by 38%.
- PowerLight has successfully reduced Balance of System (BOS) costs, including the cost of installation; at the end of this project, BOS costs had been reduced by 68%.
- As PV laminate supply increases and the per-watt cost falls, PowerGuard will continue to become more affordable.

## FOR MORE INFORMATION

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